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VALUATION OF THE RISK OF SARS IN TAIWAN

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ABSTRACT

Two surveys conducted in Taiwan during the spring 2003 SARS epidemic reveal a high degree of concern about the threat posed by SARS to Taiwan and to residents, although respondents believe they are knowledgeable about the risk of SARS and that it is susceptible to individual control. WTP to reduce the risk of infection and death from SARS is elicited using contingent valuation methods. Estimated WTP is high, implying values per statistical life of US$3 to 12 million. While consistent with estimates for high-income countries, these values are substantially larger than previous estimates for Taiwan and may be attributable to the high degree of concern about SARS at the time the data were collected.

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1. Introduction

Severe acute respiratory syndrome (SARS) is an infection that was first reported in Spring 2003. It is believed to have originated in mainland China and significant outbreaks occurred in several parts of Southeast Asia and in Toronto, Canada. By summer, the outbreaks were largely contained through quarantines and other measures. By 11 July, nearly 8,500 probable cases had been reported to the World Health Organization (WHO), of which 813 proved fatal. The largest outbreaks were in mainland China (5,327 probable cases, 348 deaths), Hong Kong (1,755 cases, 298 deaths), Taiwan (671 cases, 84 deaths), Canada (250 cases, 38 deaths), and Singapore (206 cases, 32 deaths) (WHO, 2003a).

SARS is an atypical pneumonia apparently caused by a newly identified strain of coronavirus. Most cases have developed in previously healthy adults with only a few suspected cases in children. The incubation period is typically 2 to 7 days. Symptoms generally begin with a high fever, sometimes accompanied by chills, headache, and diffuse muscular pain. After 3 to 7 days, SARS progresses to a lower respiratory phase including a dry cough. Mechanical ventilation is required in 10 to 20 percent of cases. Although steroids and a variety of antiviral and antibiotic agents have been administered, there is no recognized and effective treatment. The fatality rate among probable and suspected cases is approximately 3 percent (WHO, 2003b).

In Taiwan, most of the early cases were imported from China and Hong Kong, or were family members, friends or medical workers in close contact with these patients. On 22 April, an outbreak occurred at the Taipei Municipal Hoping Hospital after which the situation deteriorated rapidly. Two days later, the Taipei City government established a SARS Emergency Response Task Force and closed the hospital. The task force ordered all of the 930 staff members and 240 patients to stay in the hospital to prevent the further spread of the SARS virus. At its peak, Taiwan reported 60 SARS cases in a single day. The situation was brought under control in late of May and the WHO announced it would remove Taiwan from the list of areas with local transmission of SARS on 5 July.[1] The epidemic was heavily concentrated in Taipei city and Taipei county, with 518 of a total of 665 probable cases located in the northern part of Taiwan (Taiwan Department of Health, 2003).

During this period, we conducted two surveys to assess Taiwan residents' perceptions and economic valuation of the risk of contracting SARS. In Section 2, we describe the surveys and data collected. Section 3 summarizes risk perceptions and willingness to pay for a vaccine to prevent SARS. Section 4 concludes.

2. Data Collection and Sample Statistics

This study incorporates data from two surveys. Both surveys elicited information on respondents' perceptions of the SARS risk, precautions taken to reduce the risk, and willingness to pay for a hypothetical SARS vaccine. Socio-demographic characteristics were also collected.

The larger survey (the "Taiwan sample") was conducted between 6 and 12 May using random-digit-dial computer-assisted telephone interviewing. The sample was restricted to individuals aged 20 to 65 years residing in Taiwan. The survey was conducted during the peak of the epidemic and only included questions about SARS. In total, 1,028 interviews were completed. The response rate among individuals contacted was 77 percent (1,028 completed interviews out of 1,334 individuals contacted).

The smaller survey (the "Taipei sample") was conducted between 19 April and 25 May 2003. The survey period almost exactly corresponds to the period during which new cases were frequent. The survey was a more general health and food-safety survey of women in Taipei city

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[1] The number of new probable cases ranged from zero to three per day before mid April, from 10 to 25 per day between mid April and mid May, then fall rapidly to zero by mid June (Taiwan

and county that also included questions about SARS. Initial interviews were conducted in-person, at the respondent's home, but as the SARS outbreak worsened this mode proved infeasible and so on 28 April a mixed-mode mail/telephone approach was substituted. In this mode, questionnaires were mailed to respondents who completed a follow-up telephone interview one to two weeks later. In total, 488 interviews were completed. Response rates among contacted individuals for the two survey modes were similar, 86 percent (= 198/230) for the in-person interviews and 82 percent (= 290/350) for the mail/telephone mode.

Summary statistics and definitions of the variables are reported in Table 1. In the Taiwan sample, the respondents' mean age is 40 years, with two-thirds of respondents between 30 and 50 years old. Three-quarters of the respondents are married and 56 percent are male. About 20 percent have a university education (average schooling is 12.4 years) and 16 percent reside in Taipei city and county. The average number of household members is four. The average monthly income level is NT$39,082 (about US$13,400 per year).[2] Almost three-quarters of the respondents express some kind of religious belief. Only six percent of the respondents indicated that they would visit China or Hong Kong in the following year. On a standard five point scale, mean health status is 4 (very good). Nearly half of the respondents indicated that they had worn masks when they went outside their homes in the previous week.

In the Taipei sample, all of the respondents are women, by design. Compared with the Taiwan sample, they are older (mean age of 50 years), more likely to be married (90 percent), have a year and a half less schooling (10.7 years) and have substantially greater household income (NT$62,166 per month, about US$21,300 per year). The Taipei respondents rate their

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Department of Health, 2003).

[2] The exchange rate is 1US$ = 34.95 New Taiwan Dollars (NT$) in 2003.

health as somewhat lower on average, with a mean of 3.3. A larger fraction (two-thirds) report wearing a mask to protect against SARS. In contrast, only five percent of respondents had taken a flu vaccine shot in the previous six months.

Several decades of psychometric research have shown that public conceptions of risk are complex and influenced by qualitative features of hazards. Studies summarized by Slovic (1987) identify three clusters of attributes that describe how people perceive various technological hazards and risky activities. These factors may also influence WTP to reduce risk (McDaniels et al., 1992; Savage, 1993). One cluster of attributes concerns the extent to which a given risk is a source of "dread." In general, dreaded risks are perceived as uncontrollable, fatal, and having catastrophic potential. A second cluster involves attributes that are perceived as "unknown," including risks that are new, unobservable, unfamiliar and have delayed consequences. A third cluster of attributes concerns an individual's level of exposure to the risk, and encompasses both personal and societal levels of exposure.

To characterize respondents' risk perceptions, we included three questions related to these attribute clusters. Each of these questions uses a five point scale. The variable *Fatal* describes the respondent's belief about the risk of fatality if one contracts SARS. *Knowledge* describes the respondents' perceived knowledge about the mechanisms by which SARS is transmitted between people, and *Control* describes the extent to which the risk of infection can be modified by the individual.

Additional risk-perception questions were designed to characterize respondents' beliefs about the threat presented by the SARS epidemic to Taiwan and to themselves. *Severity* summarizes how serious the respondent believes the effect of the epidemic will be on Taiwan and *Economy* describes how important an effect the respondent believes the epidemic will have on the Taiwanese economy. Perceived risk to the respondent is summarized by three variables:

Concern (the respondent's overall degree of concern about SARS), *Danger* (the effect of SARS on the respondent's own life), and *Income Risk* (the effect of SARS on the respondent's income this year). *Danger* and *Income Risk* are structured as 10 point scales.

An additional measure of individual concern about SARS is the economic value of reducing the risk of contracting the illness. Willingness to pay (WTP) to reduce the risk of developing SARS was elicited using conventional contingent valuation (CV) methods. Respondents were asked if they would be willing to purchase a vaccine (if it existed) that would eliminate the chance of becoming infected with SARS. To test for sensitivity of elicited WTP to the scope or magnitude of the benefit (Hammitt and Graham, 1999), the baseline risk of SARS, the conditional mortality risk, and the duration of protection were randomly varied among respondents. The risk of infection with SARS was described as either 3 per 100,000 or 5 per 100,000 per month in Taiwan, the mortality risk conditional on developing SARS as either 10 percent or 5 percent,[3] and the period over which the vaccine would protect the individual as either 12 months or 6 months (in the Taiwan sample) or as either 6 months or 3 months (in the Taipei sample).

WTP was elicited using double-bounded binary-choice questions (Hanemann et al., 1991). Binary-choice questions are easier for respondents than open-ended alternatives, and less likely to induce a bargaining response. Respondents were first asked if they would or would not purchase the vaccine if it cost a specified amount. Respondents who indicated they would purchase the vaccine were asked if they would still purchase it if the price were a new amount,

[3] The stated risk of infection is consistent with the actual experience. Nearly all of the approximately 670 probable cases in Taiwan occurred within a month. Dividing by the population of about 22 million yields a probability of about 3 per 100,000. The average fatality rate in Taiwan was somewhat larger than stated, 84 deaths of 670 cases or about 13 percent.

higher than the initial price, and respondents who indicated they would not purchase the vaccine were asked if they would purchase it at a lower stated price.

3. Results

3.1 Perceived Risk

Frequency distributions for the three risk-characteristic variables are reported in Table 2, and the means and standard deviations for these variables are in Table 1. SARS risk is widely perceived as fatal, with 76 percent of the Taiwan sample and 86 percent of the Taipei sample rating it 4 or 5 on a five point scale. Respondents believe they are well informed, however. About 80 percent of respondents in both samples rate their knowledge about transmission mechanisms as 4 or 5. Finally, SARS is perceived as moderately controllable. The fractions judging its controllability as 4 or 5 are 46 percent in the Taiwan sample and 58 percent in the Taipei sample. This pattern of results suggests that SARS is not likely to be among the most feared risks, since risks that are perceived to be unknown and uncontrollable tend to elicit greater fear (Slovic, 1987).

Questions about the threat of SARS to Taiwan and to the respondents also reveal a high degree of concern. The average rating of the *Severity* of the effect of SARS on Taiwan is 4.1 in the Taiwan sample and 3.8 in the Taipei sample, and the average rating for its effect on the *Economy* is 4.5 in the Taiwan sample (this question was not asked in the Taipei sample). Respondents' perceptions of the threat to their own lives appear to reflect slightly less concern, potentially reflecting optimism bias (Weinstein, 1989) or denial. The average rating of *Concern* is 3.6 (Taipei sample). In the Taiwan sample, the average value of *Danger* (reflecting the effect of the SARS epidemic on the individual's life) is 6.3 (on a 10 point scale), slightly greater than the average value of *Income risk* (reflecting concern about the effect of SARS on the individual's income this year), 5.1 on a 10 point scale.

3.2 Willingness to Pay to Reduce Risk

The fractions of respondents who indicated they would purchase a vaccine declined significantly with the stated price. In the Taiwan sample, the initial bids and fractions of respondents indicating they would purchase the vaccine in the initial question are NT$500, 89 percent, NT$1,500, 84 percent; and NT$4,000, 67 percent, respectively. In the Taipei sample, the corresponding values are NT$500, 83 percent, NT$1,000, 66 percent; and NT$5,000, 44 percent, respectively.

WTP is estimated using linear regression equations, in which the logarithm of WTP is assumed to be normally distributed with a mean that is a linear function of risk and individual characteristics. Because WTP is elicited using the double-bounded binary-choice format, individual WTP is censored by the prices stated in the initial and follow-up questions, and by zero (for people who indicate they would not purchase the vaccine in both initial and follow-up questions). Following conventional practice, the regression models are estimated using maximum-likelihood methods (Alberini, 1995).

Three regression models are estimated for each sample. The simplest models include only the dummy variables characterizing the magnitude of risk reduction (columns (1) and (4) in Table 3). The second set adds individual characteristics (columns (2) and (5)) and the third set adds risk perception variables (columns (3) and (6)).

WTP to reduce risk is estimated to increase with the magnitude of the risk reduction. The coefficients on *Risk*, *Mortality*, and *Duration* are all positive. Aggregating across models, five of the six coefficients on *Risk* and *Duration* are significantly different from zero at the 1 percent level, and one of the coefficients on *Mortality* is significant at the 10 percent level in the Taiwan sample (columns (1) – (3)). Estimated values of the coefficients are similar in the Taipei sample but significance levels are lower, perhaps because of the much smaller sample size. Consistent with most of the literature on CV estimates of WTP to reduce health risk (Hammitt and Graham, 1999), the estimated coefficients are substantially smaller than the level implied by the prediction of standard economic theory that WTP for small reductions in mortality or other health risks should be nearly proportional to the reduction in probability of harm. This departure from proportionality suggests that respondents may not have adequately considered the specific numerical risk values specified in the questions.

In the Taipei sample, respondents who were interviewed by telephone report significantly greater WTP for a SARS vaccine than those interviewed in person. Because telephone interviews were substituted for in-person interviews part way during the survey, the effects of survey mode and date of interview are confounded in our data, and so we cannot determine whether this coefficient reflects increasing concern about SARS during the survey period or a survey-mode effect. The Taiwan sample data reveal no significant effect of interview date, but these data were collected during a one week period and so provide little information on possible temporal effects.

The estimated coefficients of the socio-demographic characteristics appear reasonable and consistent across model specifications. The effect of household income is positive and highly significant. The estimated income elasticity is 0.3 to 0.5 in both samples, consistent with previous studies in Taiwan (Liu et al., 2000) and elsewhere (e.g., Viscusi and Aldy, 2003). More highly educated respondents express significantly higher WTP in the Taiwan sample, but education has no effect in the Taipei sample. In contrast, WTP decreases with household size in the Taipei sample, but not in the Taiwan sample. Age, ethnicity, marital status, and health status are not significantly related to WTP in either sample, nor are gender, having religious beliefs, or living in the Taipei area in the Taiwan sample. The evidence on behavioral factors is mixed. Although the coefficients suggest that respondents who wear a mask for protection from SARS have higher WTP, none are statistically significant. In contrast, Taipei-sample respondents who obtained a flu shot reveal significantly greater WTP for a SARS vaccine, possibly reflecting a selection effect involving respondents who are predisposed to getting vaccinated.

The performance of the risk-perception variables is mixed. Of the three variables based on psychometric attributes—*Fatal*, *Knowledge*, and *Control*—only *Fatal* has a statistically significant coefficient, and only in the Taipei sample. The coefficient on *Severity*, reflecting concern about the effect of SARS on Taiwan, is insignificant but the coefficient on *Economy*, reflecting concern about the effects on Taiwan's economy, is positive and significant in the Taiwan sample. The variables directed at personal risk are much more important in explaining variation in WTP. *Danger* and *Income Risk* are positive and significant in the Taiwan sample, and *Concern* is positive and significant in the Taipei sample.

Predicted WTP for the SARS vaccine, calculated at the sample mean of the independent variables, is reported in Table 3. These predictions are adjusted for the indicated levels of the *Risk*, *Mortality*, and *Duration* variables and used to calculated the associated value per statistical life (VSL) reported in Table 4 (column headings correspond to the regression models in Table 3). VSL is the marginal rate of substitution between income and mortality risk, calculated here by dividing WTP for the vaccine by the corresponding reduction in mortality risk (equal to the product of the baseline risk of SARS, the conditional mortality risk, and the duration for which the vaccine is effective[4]). Because the estimated coefficients of *Risk*, *Mortality*, and *Duration* are smaller than the values consistent with proportionality between risk reduction and WTP, estimated VSL depends on the levels of these variables. Specifically, since estimated WTP varies

[4] Discounting to adjust for latency of benefit was neglected since it would have minimal effect given that the vaccine is effective for one year or less.

less than proportionately to risk reduction, estimated VSL tends to be larger for the smaller risk reductions than for the larger risk reductions.

The estimates of VSL reported in Table 4 are somewhat larger than estimates previously reported for Taiwan. Based on estimates of the wage premium workers receive to compensate for occupational fatality risk, Liu et al. (1997) estimated VSL in 1982 to 1986 as approximately US$360,000 to 680,000 using actuarial risk estimates (1990 dollars, excluding anomalously low 1984 values). Liu and Hammitt (1999) estimated VSL in 1995 as US$620,000 (controlling for injury risk) and US$1.2 million (not controlling for injury risk), using worker's subjective risk estimates (1995 dollars). In a CV study of WTP to reduce health risks associated with pesticide residues on foods, Fu et al. (1999) estimated values per statistical cancer of US$580,000 to 1.3 million (1995 dollars). The values in Table 4 are similar to estimates for the United States and other high-income countries, for which Viscusi and Aldy (2003) suggest the most reasonable estimates for the average blue-collar worker range from about $4 million to $9 million, with a median value of $7 million (2000 dollars). The rather high estimates may be attributable to the high degree of salience and concern about SARS during the survey period, or to the possibility that respondents believed the risk they faced to be larger than the probabilities stated in the survey (3 or 5 per 100,000 per month).

4. Conclusions

Two surveys conducted in Taiwan during the peak of the SARS epidemic reveal a high degree of concern about SARS and high willingness to pay for a vaccine to prevent the risk of infection. The general consistency of results between the two surveys—which encompass different populations (adult residents of Taiwan vs. female adult residents of Taipei city and county) and survey modes (telephone vs. in-person and mail/telephone)—provides some evidence that the results are reliable.

The risk-perception results suggest that, while SARS was of great concern, respondents also believed they were knowledgeable about the risk and that it was to some degree susceptible to individual control. Willingness to pay for a vaccine to protect oneself from SARS was quite high compared with WTP to reduce other fatal risks. Among individuals, estimated WTP is related to household income and perceived threat of SARS to the respondent, but not strongly related to the perceived effect of the epidemic on Taiwan. Interpreting the estimated WTP as a value per statistical life yields values consistent with estimates of VSL in the United States and other high-income countries, substantially larger than previous estimates for Taiwan. In significant part, these high values may reflect the novelty, salience, and high degree of concern about SARS during the period in which these data were collected.

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Table 1. Definition and Basic Statistics of Variables

		Taiwan Sample		Taipei Sample	
Variable	Definition	Mean	Std Dev	Mean	Std Dev
Risk	Dummy = 1 if risk per month = 5 x 10^{-5}, 0 if 3 x 10^{-5}	0.515	(0.500)	0.600	(0.490)
Mortality	Dummy = 1 if conditional mortality risk is 0.10, 0 if 0.05	0.492	(0.500)	0.481	(0.500)
Duration	Dummy = 1 if SARS vaccination is effective for 12 months, 0 for 6 months in Taiwan sample (1 if 6 months, 0 if 3 months in Taipei sample)	0.561	(0.496)	0.519	(0.500)
Telephone	Dummy = 1 if the survey is conducted by mail-telephone, 0 if personal interview			0.579	(0.494)
Age	Respondent's age in years	39.644	(9.765)	49.923	(6.193)
Male	Dummy = 1 if respondent is male, 0 otherwise	0.563	(0.496)		
Taiwanese	Dummy = 1 if ethnicity is Taiwanese, 0 if Chinese	0.920	(0.272)	0.891	(0.311)
Family Members	Number of people in household	4.355	(1.976)	4.162	(1.374)
Married	Dummy = 1 if respondent is married, 0 otherwise	0.741	(0.438)	0.898	(0.303)
Education	Years of Schooling	12.355	(3.171)	10.711	(3.930)
Log (income)	Log of monthly family income (NT$)	10.437	(0.499)	10.813	(0.705)
Taipei Dummy	Dummy = 1 if respondent lives in Taipei City and Taipei Country, 0 otherwise	0.159	(0.366)		
Religion Belief	Dummy = 1 if respondent has religious belief, 0 otherwise	0.750	(0.433)		
Income Risk	Effect of SARS on respondents' income this year, 1-10, 1 = not at all, 10 = very much	5.110	(3.287)		
Economy	Respondent perceives SARS to be serious impact on Taiwan's economy, 1-5, 1 = not at all, 5 = very serious	4.473	(0.852)		

Health Status	Respondent's perceived health status, 1 = very poor, 5 = excellent	4.021	(0.808)	3.340	(0.838)
Mask	Dummy = 1 if respondent wears mask outside, 0 otherwise	0.471	(0.499)	0.666	(0.472)
Flu Shot	Dummy = 1 if respondent had flu shot in last 6 months, 0 otherwise			0.057	(0.233)
Visit	Dummy = 1 if respondent would visit China or Hong Kong in next year, 0 otherwise	0. 058	(0.229)		
Severity	Severity of SARS epidemic in Taiwan, 1 = not at all serious, 5 = very serious	4.067	(0.837)	3.768	(0.849)
Danger	Effect of SARS risk on respondent's life, 1 = none at all, 10 = very serious	6.333	(3.143)		
Fatal	Perceived fatality of SARS, 1 = not at all fatal, 5 = extremely fatal	4.085	(0.873)	4.147	(0.662)
Knowledge	Knowledge about how SARS is spread, 1 = little knowledge, 5 much knowledge	4.021	(0.722)	3.783	(0.808)
Control	Degree of personal control of SARS risk, 1 = not at all controllable, 5 = extremely controllable	3.317	(0.970)	3.537	(0.883)
Concern	Concern about SARS infection, 1 = not at all concerned, 5 = very concerned			3.584	(1.036)
Sample Size		1,015		464	

Table 2. Perceived Risk: Frequency Distribution by Variable Level
(percentage of respondents)

Variable	1	2	3	4	5
Taiwan Sample					
Fatal Risk	0.5	3.9	19.5	38.8	37.3
Knowledge	0.3	3.5	12.7	60.8	22.7
Controllable	7.3	7.3	39.1	39.2	7.1
Taipei Sample					
Fatal Risk	0	0.9	13.2	56.6	29.4
Knowledge	1.1	9.2	12.1	66.0	11.7
Controllable	2.6	9.2	30.0	48.7	9.6

Table 3. WTP Equations

	Taiwan Sample			Taipei Sample		
Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	8.090***	2.295	2.224	6.664***	2.406	1.069
	(54.436)	(1.594)	(1.520)	(23.332)	(0.889)	(0.387)
Risk	0.240**	0.254**	0.263***	0.430*	0.270	0.348
	(2.042)	(2.265)	(2.372)	(1.822)	(1.095)	(1.411)
Mortality	0.200*	0.152	0.162	0.244	0.298	0.246
	(1.682)	(1.342)	(1.435)	(1.058)	(1.253)	(1.044)
Duration	0.230*	0.294**	0.283**	0.254	0.139	0.046
	(1.783)	(2.347)	(2.276)	(1.100)	(0.583)	(0.200)
Telephone				0.548**	0.512*	0.546**
				(2.377)	(1.936)	(2.017)
Age		-0.008	-0.006		0.004	0.000
		(1.112)	(0.911)		(0.200)	(0.000)
Male		-0.045	0.014			
		(0.374)	(0.100)			
Taiwanese		-0.489**	-0.480**		-0.300	-0.383
		(2.159)	(2.138)		(0.781)	(1.015)
Family Members		0.010	0.015		-0.0180**	-0.152*
		(0.332)	(0.500)		(1.970)	(1.670)
Married		0.023	-0.052		0.335	0.404
		(0.141)	(0.346)		(0.825)	(1.005)
Education		0.072***	0.061***		0.004	-0.008
		(3.228)	(2.676)		(0.100)	(0.224)
Log (income)		0.375**	0.328**		0.478**	0.397*
		(2.567)	(2.256)		(2.319)	(1.952)
Taipei Dummy		-0.060	-0.032			
		(0.400)	(0.200)			
Religion Belief		0.356***	0.365***			
		(2.640)	(2.731)			
Income Risk		0.037**	0.012*			
		(2.296)	(1.707)			
Economy		0.190***	0.122*			
		(2.867)	(1.814)			
Health Status		0.086	0.091		-0.151	-0.116
		(1.249)	(1.315)		(1.039)	(0.806)
Mask		0.116	0.075		0.277	0.237
		(1.025)	(0.663)		(1.020)	(0.872)
Flu Shot					1.215**	1.229**
					(2.007)	(2.066)
Severity			0.050			-0.120
			(0.648)			(0.728)

Danger			0.065***			
			(3.056)			
Fatal			0.076			0.451**
			(1.072)			(2.406)
Knowledge			0.088			0.003
			(1.091)			(0.000)
Control			-0.066			0.009
			(1.091)			(0.000)
Concern						0.254**
						(2.119)
σ	1.534	1.458	1.435	1.963	1.919	1.869
Log Likelihood	-1107.7	-1069.4	-1057.9	-500.01	-453.64	-446.78
WTP, median	4686	5231	5400	1919	2397	2595

Notes: t-statistics are in parentheses. *, **, *** indicate estimated coefficient is statistically significantly different from zero at 10, 5, and 1 percent, respectively. WTP in NT$. 2003 exchange rate is US$1 = NT$34.95.

Table 4. Estimated Value per Statistical Life
(US$ millions)

	Taiwan Sample			Taipei Sample		
	(1)	(2)	(3)	(4)	(5)	(6)
Duration = 12 months (Taiwan), 6 months (Taipei)						
Mortality = 0.10						
Risk = 5 / 100,000	3.1	3.5	3.6	2.8	3.2	3.3
Risk = 3 / 100,000	5.0	6.0	6.1	4.4	4.7	5.2
Mortality = 0.05						
Risk = 5 / 100,000	4.0	4.5	4.6	3.0	4.0	3.9
Risk = 3 / 100,000	6.6	7.7	7.8	4.7	6.0	6.1
Duration = 6 months (Taiwan), 3 months (Taipei)						
Mortality = 0.10						
Risk = 5 / 100,000	4.9	5.2	5.4	4.3	5.5	6.3
Risk = 3 / 100,000	8.0	8.9	9.2	6.8	8.2	9.9
Mortality = 0.05						
Risk = 5 / 100,000	6.4	6.7	6.9	4.7	7.0	7.4
Risk = 3 / 100,000	10.5	11.5	11.8	7.3	10.5	11.6